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EXAMINER

SHIMIZU, MATSUICHIRO

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 04/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/662,857

Applicant(s)

EYER, MARK KENNETH

Examiner

Matsuichiro Shimizu

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

***Claim Rejections – 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

claims 1–4, 6–7 and 14–16 are rejected under 35 U.S.C. 102(b) as being anticipated by Schultheiss (6,195,548).

Regarding claims 1 and 14, Schultheiss teaches a system, comprising:

a first device (Fig. 2, col. 7, lines 14–41, personal computer device 12) coupled to a transmission medium (Fig. 2, medium 70b) ;

a second device (Fig. 2, col. 7, lines 14–41, TV coupled interface 200) coupled to the transmission medium (Fig. 2, medium 70b); and

a remote control unit (Fig. 2, remote control 50' interface 200, rather than using personal computer 12 as an intermediary) for controlling the second device,

the remote control unit to transmit a data code sequence (Fig. 2, col. 7, lines 14–41, data code sequence associated with command signal 74a),

the data code sequence recognized by the second device (Fig. 2, col. 7, lines 38–41, TV coupled to interface 200 recognizes command signal 74a, rather than using personal computer 12 as an intermediary),

the data code sequence for the purpose of controlling the second device (Fig. 2, col. 7, lines 38–41, remote control 50' directly controls TV coupled to interface 200, rather than using personal computer 12 as an intermediary),

the first device comprising circuitry

to generate a representation of the data code sequence (Fig. 2, col. 7, lines 14–41, data code sequence associated with TV command signal 74a) if the data code sequence is not recognized by the first device (col. 7, lines 14–41, first device is not controlled by the TV command signal 74a is the evidence of the signal not recognized by the first device), and

to transfer the representation of the data code sequence to the transmission medium (channel associated with television remote commands 70b)) to control the second device (Fig. 2, TV device 40).

Regarding claim 2, Schultheiss teaches the system of claim 1, wherein the first device is coupled to broadcast (Fig. 2, remote TV commands 70b is the evidence of command being broadcast toward interface 200) the representation of the data code sequence on the transmission medium.

Regarding claims 3–4, Schultheiss teaches the system of claim 1, wherein the remote control unit is coupled to transmit the data code sequence on an infrared (IR) carrier (Fig. 1, IR channel 72), and the remote control unit is an infrared (IR) keyboard (col. 25–37, infrared keys 58 and 62).

Regarding claim 6, Schultheiss teaches the system of claim 1, wherein the representation of the data code sequence is measurement of data code sequence waveform (Fig. 2, waveform of remote TV command 70a is measured and converted to IR signal for the control of TV 40).

Regarding claim 7, Schultheiss teaches the system of claim 1, wherein the transmission medium is compatible with a wired or wireless protocol (Fig. 2, protocol is evidenced via communication between system 100 and system 200).

Regarding claim 15, Schultheiss teaches the method of claim 14, further comprising transferring the data code sequence on a modulated carrier (col. 5, lines 38–40, UHF carrier is modulated by video signal, and col.7, lines 14–24, likewise, UHF carrier is inherently present, and modulated by remote television command associated with command keys 58 and 62 or same as modulated UHF carrier 74b and 70b).

Regarding claim 16, Schultheiss teaches the method of claim 15, further comprising demodulating the modulated carrier (Fig. 2, TV commands 216 is same as demodulated from the modulated UHF carrier 70b).

Claims 19–20 are rejected under 35 U.S.C. 102(b) as being anticipated by Harrington (4,864,647).

Regarding claim 19, Harrington teaches a system, comprising:

a first device (Fig. 1, device 5) coupled to a transmission medium (Figs. 3 and 4, wireless FM transmission medium between 5 and 4);

a second device (Fig. 1, device 4) coupled to the transmission medium;

a remote control unit (Fig. 1, IR transmitter 3) for controlling a third device (Fig. 1, IR controlled device 1),

the remote control unit to transmit a data code sequence,

the data code sequence (Figs. 1, code sequence 16 and 12) recognized by and for controlling the third device,

the first device comprising circuitry (Fig. 3)

to measure the data code sequence,

to generate a representation of the data code sequence from measurements (Fig. 3, FM transmitter), and

to transfer (Fig. 3, transfer via antenna 14) the representation of the data code sequence to the transmission medium,

the second device comprising circuitry (Fig. 4)

to translate (Fig. 4, demodulation associated with FM receiver 16) the representation of the data code sequence back to the data code sequence and

to transfer (Fig. 4, transfer via emitter 18) the data code sequence to the third device to control the third device (Fig. 1 IR controlled device 1).

Regarding claim 20, Harrington teaches the system of claim 19, wherein the remote control unit is an infrared (IR) keyboard (Figs. 1-2, keyboard 24).

***Claim Rejections – 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schultheiss in view of Darbee (5,778,256).**

Regarding claim 5, Schultheiss is silent on the system of claim 4, wherein the remote control unit is personal digital assistant (PDA).

However, Darbee teaches, in the art of remote control system, the remote control unit is personal digital assistant (PDA) (col. 1, lines 11-25, PDA and IR emitter) for the purpose of increasing operational utility. Therefore, it would have been obvious to a person skilled in the art at the time the invention

was made to include the remote control unit is personal digital assistant (PDA) in the device of Schultheiss because Schultheiss suggests portable remote control with key board and Darbee teaches the remote control unit is personal digital assistant (PDA) for the purpose of increasing operational utility.

Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultheiss in view of Shintani et al. (6,111,677).

Regarding claim 8, Schultheiss teaches wireless communication medium 70b and 74a (Fig.2). But Schultheiss is silent on the system of claim 7, wherein the transmission medium is an IEEE 1394 Serial Bus.

However, Shintani teaches, in the art of communication system, the transmission medium is an IEEE 1394 Serial Bus (col. 2, lines 64 to col. 3, line 6, IEEE 1394 as well as rf , optical link) for the purpose of providing audio/video connection.

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the transmission medium is an IEEE 1394 Serial Bus in the device of Schultheiss as evidenced by Shintani because such would provide necessary audio/video connection without unnecessarily losing connection at all times, thus increasing communication reliability.

Regarding claims 9-10, Schultheiss teaches wireless communication (Fig.2). But Schultheiss is silent on the system of claim 7, wherein the transmission medium is compatible with an Ethernet protocol and twisted pair.

However, Shintani teaches, in the art of communication system, the



transmission medium is an IEEE 1394 Serial Bus, cable and nodes associated with network (col. 2, lines 64 to col. 3, line 6, IEEE 1394 as well as rf, optical link; col. 1, lines 19–29, cable associated with bus) for the purpose of providing connection for plural devices. Furthermore, one skilled in the art recognizes twisted cable is well known in cable medium and Ethernet protocol is compatible with addressable nodes associated with IEEE 1394 protocol.

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include transmission medium is compatible with an Ethernet protocol and is twisted pair in the device of Schultheiss as evidenced by Shintani because such would provide necessary remote connection without unnecessarily losing connection at all times, thus increasing communication reliability.

Claims 11–13 and 17–18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultheiss, and further in view of Teirihangas (Helsinki University of Technology (HUT–5/15/01 (best estimation))).

Regarding claims 11, 13 and 18, Schultheiss is silent on the system of claims 1 and 14, wherein the first device is to include the representation of the data code sequence in an audio–video control Function Control Protocol (*AV/C FCP*) packet (page 5, last paragraph; page 6, first three paragraphs) and to transmit the FCP packet having the representation of the data code sequence to the second device only (lines 2–3, page 6, peer–peer fashion is between the first device and the second device), and the first and second devices are audio/video devices.

However, Teirihangas teaches, in the art of network system, the first device is to include the representation of the data code sequence in an audio-video control Function Control Protocol (*AV/C FCP*) *packet* (page 5, last paragraph; page 6, first three paragraphs) and to transmit the FCP packet having the representation of the data code sequence to the second device only (lines 2-3, page 6, peer-to-peer fashion is between the first device and the second device) , and the first and second devices are audio/video devices (Fig. 1, page 1, two audio/video devices connected in peer-to-peer fashion) for the purpose of providing 1394 connectivity. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the first device is to include the representation of the data code sequence in an audio-video control Function Control Protocol (*AV/C FCP*) *packet* and to transmit the FCP packet having the representation of the data code sequence to the second device only and the first and second devices are audio/video devices in the device of Schultheiss as evidenced by Teirihangas because such would provide necessary connectivity without unnecessarily loosing connection at all times, thus increasing communication reliability.

Regarding claims 12 and 17, Schultheiss is silent on the system of claims 1 and 14, wherein the first device is to include the representation of the data code sequence in a Function Control Protocol (FCP) packet and broadcast the FCP packet having the representation of the data code sequence on the transmission medium to all devices on the network.

However, Teirihangas teaches, in the art of network system, the first device is to include the representation of the data code sequence in a Function Control Protocol (FCP) packet (page 5, last paragraph; page 6, first three paragraphs) and broadcast the FCP packet having the representation of the data code sequence on the transmission medium to all devices (Fig. 11, transmitted signals broadcast or fill the whole FireWire with 1394 protocol) on the network for the purpose of providing 1394 connectivity. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the first device is to include the representation of the data code sequence in a Function Control Protocol (FCP) packet and broadcast the FCP packet having the representation of the data code sequence on the transmission medium to all devices on the network in the device of Schultheiss as evidenced by Teirihangas because such would provide necessary connectivity without unnecessarily losing connection at all times, thus increasing communication reliability.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harrington in view of Teirihangas.

Regarding claim 21, Harrington is silent on the system of claim 20, wherein the first and third devices are audio/video devices.

However, Teirihangas teaches, in the art of network system, the first and third devices are audio/video (Fig. 1, page 1, the first and third devices are

AV and second is camera) for the purpose of providing operation of multiple devices. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the first and third devices are audio/video in the device of Harrington because Harrington suggests the first and second devices are AV and Teirihangas teaches the first and third devices are audio/video for the purpose of providing 1394 interoperable consumer products.

Claims 22–25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani et al. (6,111,677) in view of Prunier et al. (5,870,593).

Regarding claim 22, Shintani teaches an apparatus, comprising:

optical receiver 122 (col. 3, lines 61–65, received optical command can be sampled at low sampling rate), buffer 124, and cable I/O interface 126 coupled to EE1394 bus medium (Fig. 1, col.2, line 2+). But Shintani is silent on optical receiver, demodulator and processor to sample the data code sequence and to generate a representative of the data code sequence from samples to be stored in the buffer.

However, one of ordinary skill in the art recognizes output of optical receiver, demodulator and processor, and output of optical receiver 122 (Fig. 1, 122) provide same data stream to the buffer 124, and therefore, optical receiver 122 is obvious combination of optical receiver, demodulator and processor.

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include an optical receiver, demodulator and processor in the device of Shintani because one of ordinary skill in the art recognizes an optical receiver, demodulator and processor as one optical receiver module for the purpose of providing detailed communication module.

Furthermore, Prunier teaches, in the art of coding system, sampling the data code sequence and generating a representative of the data code sequence from samples to be stored in the buffer (Fig. 4, col. 4, lines 15–34, data code sequence S when timer 2 and the programming of divider 10 analyzes sample E wherein sample E is analogously associated with received optical pulse width) for the purpose of providing reliable data transmission.

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include sampling the data code sequence and generating a representative of the data code sequence from samples to be stored in the buffer in the device of Shintani as evidenced by Pruniew because such would provide continuous data stream without unnecessarily losing data at all times, thus increasing communication reliability.

Regarding claim 23, Shintani teaches the processor is further to sample binary data bits in a message/command in the data code sequence (col. 3, lines 61–65, received optical command can be sampled at low sampling rate).

Regarding claim 24, Shintani teaches the demodulator is further to remove an amplitude modulated carrier having a frequency in a range of typically thirty kilohertz (kHz) to sixty kHz, or a narrower range (col. 4, lines 10–13, carrier frequency range of 40 KHz to 455 KHz) to recover the data code sequence.

Regarding claim 25, Shintani teaches the processor is further to generate the representation of the data code sequence (col. 2, lines 44–63, code sequence associated with serial data in conformity with the IEEE 1394 serial bus protocol).

But shintani is silent on generating data code sequence in the form of a list of the samples.

However, Prunier teaches, in the art of coding system, generating data code sequence in the form of a list of the samples (Fig. 4, col. 4, lines 15–34, data code sequence S when timer 2 and the programming of divider 10 analyzes sample E wherein sample E is analogously associated with received optical pulse width) for the purpose of providing reliable data transmission.

Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include generating data code sequence in the form of a list of the samples in the device of Shintani as evidenced by Pruniew because Shintani suggests generating the representation of the data code sequence and Prunier teaches generating data code sequence in the form of a list of the samples for the purpose of providing reliable data transmission.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shintani in view of Prunier as applied to claim 24 above, and further in view of Contaldo et al. (6,728,600).

Regarding claim 26, Shintani is silent on the apparatus of claim 24, wherein the I/O interface is further to insert a representation of the data code sequence in an Internet protocol (IP) packet.

However, Contaldo teaches, in the art of network system, an Internet protocol (IP) packet (col. 4, lines 52–63) for the purpose of providing internet connectivity. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include an Internet protocol (IP) packet in the device of Shintani in view of Prunier as evidenced by Contaldo because such would provide necessary internet connectivity without unnecessarily limited source of database at all times, thus expanding source of database.

Art Unit: 2635


***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matsuichiro Shimizu whose telephone number is 571-272-3066. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik, can be reached on 571-272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3068.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703-305-8576).

*Matsuichiro Shimizu*

*March 30, 2006*



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